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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,402	09/05/2000	Seung Woog Choi	K-214	8209

34610 7590 04/20/2005

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EXAMINER
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D AGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

### Application No.

09/655,402

### Applicant(s)

CHOI, SEUNG WOOG

### Examiner

Stephen M. D'Agosta

### Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-20, 23 and 24 is/are allowed.
- 6) ☒ Claim(s) 1, 5 and 6 is/are rejected.
- 7) ☒ Claim(s) 7-10 and 21-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 2-15-05 have been fully considered but they are not persuasive.

1. After further consideration, the primary examiner objects to original claim 7 and allows claims 11 to 20. Independent claims 11 and 20 recite novel material "setting a reverse link coverage of said picocell greater than a forward link coverage of said picocell". New claims 21-22 recite objected-to material while claims 23-24 are allowed.

2. The applicant argues that Gilhousen teaches reducing power. While the primary examiner agrees that Gilhousen presents this as an option, he also discloses that it is possible for the power to stay the same and/or be increased. Hence the claim is properly rejected.

3. The applicant argues that Weaver teaches a hard handoff. While the primary examiner agrees, it is the concept of a generic handoff that the examiner relies upon for Weaver's teachings, hence the claim is properly rejected.

4. With respect to Tiedemann, the examiner uses Gilhousen's teachings to cure deficiencies in the cited prior art, Tiedemann is specifically cited as follows:

"While EHDM/HCM messages are well known in the art and used for standard cellular handoff operations, the examiner puts forth Tiedemann who teaches EHDM and HCM messages (C7, L26-38, C9, L29-46 and C14, L13-31) and also discloses both forward and reverse power control (figures 8-10d and C15, L63 to C19, L45)".

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5. With regard to the primary examiner not establishing a prima facie case, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The examiner has pointed to specific teachings and specific concepts that properly combine reject the claims along with motivation statements that establish a prima facie case.

6. A new final office action is found below.

### ***Claim Rejections - 35 USC § 103***

**Claims 1 and 5-6** rejected under 35 U.S.C. 103(a) as being unpatentable over Bojerd US 5,946,622 in view of ~~Weaver Jr. et al. US 5,917,811~~, Tiedemann Jr. et al. US 5,999,816 and Gilhousen et al. US 5,603,096 (hereafter Bojerd, Weaver, Tiedemann Jr and Gilhousen).

As per **claims 1**, Bojerd teaches a cellular/wireless system that supports both macrocell and picocell service (abstract and figure 1) and the ability to handoff between the two systems (C1, L30-37) **but is silent on** performing power control such that a transmission power level of said mobile station is not lowered, if said mobile station is determined to be within said soft handoff region and if a soft handoff of said mobile station is required wherein the transmission power level of said mobile is not lowered during a transmission of an extended handoff direction message and handoff complete message.

**Gilhousen** teaches reverse link closed loop power control whereby "...If the mobile is in a soft hand-off mode, then power control commands are received from two or more base stations at the same time. The general rule for combining the control commands from multiple base stations is that power is turned up only

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if all received power control commands agree to turn up the power. Power will be turned down if any of the power control signals instruct the mobile to "turn down". Power will be unchanged if all but one base station command "turn up" and one commands "no change" (C6, L55-65). This discloses that three options are available for power control during a soft handoff from any cell to another, ie. increase, decrease or do not change transmit power).

While EHDM/HCM messages are well known in the art and used for standard cellular handoff operations, the examiner puts forth **Tiedemann** who teaches EHDM and HCM messages (C7, L26-38, C9, L29-46 and C14, L13-31) and also discloses both forward and reverse power control (figures 8-10d and C15, L63 to C19, L45).

It would have been obvious to one skilled in the art at the time of the invention to modify Bojerd, such that forward/reverse power control is not lowered and EHDM/HCM messages are used, to provide dynamic power control (ie. power up, down, same) via known messaging standards during soft handoff in macro/picocell areas.

As per **claims 5-6**, Bojerd teaches a cellular/wireless system that supports both macrocell and picocell service (abstract and figure 1) and the ability to handoff between the two systems (C1, L30-37) and picocell base stations that have the ability provide RF cellular communication support (eg. power control) for any mobile unit within its region (C1, L60-66) **but is silent on power control and forward/reverse link coverage.**

**Gilhousen** teaches reverse link closed loop power control whereby "...If the mobile is in a soft hand-off mode, then power control commands are received from two or more base stations at the same time. The general rule for combining the control commands from multiple base stations is that power is turned up only if all received power control commands agree to turn up the power. Power will be turned down if any of the power control signals instruct the mobile to "turn down". Power will be unchanged if all but one base station command "turn up" and one

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commands "no change" (C6, L55-65). This discloses that three options are available for power control during a soft handoff from any cell to another, ie. increase, decrease or do not change transmit power).

It would have been obvious to one skilled in the art at the time of the invention to modify Bojerd, such that power is maintained or increased, to provide dynamic power control and specific coverage area(s).

***Allowable Subject Matter***

1. **Claims 7-10 and 21-22** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

These claims recite highly specific designs which are not disclosed in the prior art of record and are novel in the examiner's opinion.

2. **Claims 11-20 and 23-24** allowed since they recite novel material, in the examiner's opinion, which is not found in the prior art of record.

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***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 571-272-7862. The examiner can be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stephen D'Agosta  
PRIMARY EXAMINER  
4-12-05

